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(57) Abstract: The invention concerns human thrombopoietin and in particular modified forms of thrombopoietin (TPO) with improved properties. The improved proteins contain amino acid substitutions at specific positions within the TPO molecule. The invention provides modified TPO molecules, preferably fusion proteins comprising immunoglobulin constant regions and modified human TPO, with improved highest all activity concomitant with reduced immunogenic potential in the protein. The improved are